Project Description

PHOTOVOLTAIC SOLAR FARM

BORREGO SPRINGS, CALIFORNIA

P09-012, P09-014, ER No. 09-05-001

Prepared for:

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PROJECT DESCRIPTION

RBF Consulting (RBF) has prepared the following Project Description to supplement our Client's [EE Borrego Land, LLC] application for development and operation of a photovoltaic (PV) solar farm to be located on presently undeveloped lands within the community of Borrego Springs, California. It is anticipated that the Project would require County approval of a Major Use Permit (MUP) to allow for the construction, operation, and maintenance of such facilities for the long-term generation of clean renewable energy from solar power, which would ultimately be sold to a utility company and distributed for public consumption. The following discussion is intended to provide the County with a detailed understanding of the Project and to identify design and operational requirements with particular regard for any potential effects the Project may have on the environment.

PROJECT LOCATION

The land areas that comprise the Project site are located just east of the community of Borrego Springs, California, within northeastern San Diego County; refer to Figure 1, Regional / Local Vicinity Map, and Figure 2, Aerial Photograph. The land that would be developed with the PV solar panels (approximately 341 acres) is comprised of two main parcels, with additional lands affected to support the transmission of power generated to the existing Borrego Substation, located just east of Borrego Valley Road. The County Assessor Parcel Numbers (APNs) that comprise the Project area for the main facilities are APN 141-230-26 (approximately 288 acres) and a portion of APN 141-230-33. Parcel 141-230-33 totals approximately 104 acres; however, only approximately 53 acres of this parcel would be included in the Project. The remaining (approximately) 51 acres would remain undisturbed and would not be leased by the Project proponent. The 53-acre portion included in the Project would be leased by EE Borrego Land, LLC, or an affiliated company, from the County of San Diego, Department of Public Works, Airport Division to support the intended facilities (refer to Figure 2, Aerial Photograph). EE Borrego Land, LLC, currently has purchase options on APN 141-230-26 and an executed option to negotiate a final lease agreement with the County of San Diego, the owner of APN 141-230-33. Palm Canyon Drive runs east-west to the south of the two parcels, with Borrego Valley Road running just west of the existing Borrego Substation. The Borrego Valley Airport borders the southern border of the approximate 53-acre-lease area.

It should be noted that the Project location offers optimal conditions for the type of project proposed. As a desert environment, the typical atmospheric conditions in Borrego Springs allow for an abundant source of sunshine on an annual basis, thereby representing a sustainable, renewable, and reliable source for solar energy production.

PURPOSE AND NEED

The Project is intended to allow for the installation and operation of a photovoltaic electrical generation facility. The Project represents an opportunity to provide the residents of Borrego and the greater area with a source of clean energy from renewable sources.

The energy generated by the Project would be transmitted to the existing Borrego Substation, located adjacent to Borrego Valley Road to the west of the Project site (currently operated by San Diego Gas and Electric [SDG&E]), via one of two routes. A small portion of the panels may also be used to provide electricity to the Borrego Valley Airport. As future population growth continues within San Diego County, the demand for electrical service will continue to increase accordingly. During the October 2007 wildfires, as well as other recent wildfire events, many residents within San Diego County experienced temporary shortages in available electrical power, due to the direct and/or indirect result of such fires. The Project represents an additional clean source of electrical power that would supplement energy currently supplied by the existing power grid, thereby reducing the potential for power shortages to occur and decreasing demands on the capabilities of the existing distribution system.

CONSISTENCY WITH CALIFORNIA GLOBAL WARMING SOLUTIONS ACT OF 2006 (ASSEMBLY BILL 32)

The Project would be consistent with and implement the goals and mandates of Assembly Bill 32 (AB 32), referred to as the California Global Warming Solutions Act of 2006, adopted by the California State Legislature in September 2006. AB 32 recognizes that California is the source of a substantial amount of greenhouse gas (GHG) emissions, and further acknowledges that global climate change may potentially result, causing adverse impacts on water supply, air quality, fire hazards, sea level rise (flooding), and/or an increase in human health-related problems. GHGs as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. AB 32 establishes a State goal of reducing GHG emissions to 1990 levels by the year 2020. In addition, the long-range reduction goal is reflected in Executive Order S-3-05, which requires GHGs to be reduced to 80 percent below 1990 levels by 2050.

In December 2008, the California Air Resources Board (CARB) adopted the AB 32 Scoping Plan which contains the main strategies California will use to reduce GHGs that cause climate change. The Scoping Plan has a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms (such as a cap-and trade system), and a cost of implementation fee regulation to fund the AB 32 program. The Plan utilizes SB 375 as the mechanism to achieve land use and vehicle mile travel reduction goals and proposes full deployment of the California Solar Initiative, high-speed rail, water-related energy efficiency measures, and a range of regulations to reduce emissions from trucks and from ships docked in California ports.

In addition, the proposed County of San Diego General Plan Update is required to comply with CARB rules and regulations that would achieve the GHG reductions stated in AB 32. Any future development (i.e., residential uses), consistent with land uses proposed under the General Plan Update, would be required to comply with Title 24 energy efficiency standards, which would help reduce project GHG emissions through building techniques and operational standards. Required compliance with air quality standards, such as those of the Air Pollution Control District (APCD), CARB, and the Clean Air Act (CAA), would further reduce criteria GHG emissions throughout the unincorporated County.

The Project would provide a source of clean energy from renewable resources, thereby reducing dependence on energy generated from non-renewable sources or through methods that require environmental disturbance. It is estimated that the use of solar power would substantially offset approximately 0.5 tons of carbon dioxide (CO_2) per Mega Watt hour (MWh), as compared to that of electricity generated by the processing of fossil fuels.[1] As such, the Project would be consistent with AB 32, producing clean energy while avoiding the generation and/or emission of compounds that would further contribute to global climate change or adverse atmospheric effects. As such, the Project would support County efforts to achieve the required overall reduction in GHG production, consistent with the timeline established by AB 32.

MERITS OF THE PROJECT

The Project would not create a substantial new source of noise in the area, either from ongoing operation of equipment or human activity (i.e., maintenance). In addition, sensitive receptors (i.e., residential uses) are not adjacent to any of the affected parcels, and therefore, would not be disturbed by construction or operation of the proposed facilities. Construction noise generated would be short-term. The technical Noise Analysis prepared for the Project by LDN Consulting, Inc. (June 2010) determined that, due to the distance of the Project sites from existing (legal) dwelling units, no significant noise impacts would result from Project-related grading or construction activities, thereby avoiding any adverse effects on sensitive land uses.

The Project also represents a land use that would require limited use of local public services and/or utilities, either during construction or operation. Project components (i.e., PV solar panels, support structures and electrical interconnection equipment) would be brought to the site and assembled. Long-term operation of the Project would require minimal use of public utilities, and use a limited amount of water for maintenance purposes (washing of the solar PV panels ~~approximately 2~~up to four times per year); refer also to *Description of Activities*, below, for additional discussion. Therefore, the Project would not create a significant new demand on local

1. Average CO2 emissions in CA from traditional fuels= 1,100 lbs. CO2/MWh or .55 tons CO2/MWh, Source CPUC: ftp://ftp.cpuc.ca.gov/puc/070319_revenergystory0107.pdf

resources, such as water, that would be required if the affected parcels were otherwise developed with alternative land uses, such as single-family residential or agricultural uses.

In addition, Project-generated traffic would be generally limited to two employees per day in one vehicle for maintenance purposes. Therefore, the Project is not anticipated to contribute to a significant increase in traffic along area roadways above existing conditions. A temporary minor increase in traffic may occur along area roadways during the construction phase as workers and materials are transported to and from the affected sites; however, the Project is not expected to cause a significant short-term increase in traffic volumes on area roads, due to the nature and scope of the construction activities required (i.e., limited grading, delivery of pre-constructed panels to the sites, etc.).

The Project would also be consistent with efforts to maintain the existing dark skies within San Diego County. Exterior Project lighting would be limited to that necessary for safety and security purposes, and therefore, would not create a substantial new source of lighting that could adversely affect dark skies within the Borrego Springs area.

LAND USE COMPATIBILITY

The Project represents a land use that would be consistent with the existing regulatory and physical characteristics of the affected properties and surrounding uses. The lands intended to support the PV solar farm are located either adjacent to or in the vicinity of the Borrego Valley Airport and fall within Airport Safety Zones 1-6 and Review Area #2 of the Borrego Valley Airport Land Use Compatibility Plan (BVALUCP), adopted December 2006. The BVALUCP provides guidance for development of lands within proximity of the Airport to ensure that existing and future land uses do not interfere with Airport operations or represent a safety hazard. The Project is considered to be a compatible use with the BVALUCP per the San Diego County Regional Airport Authority (letter dated March 2, 2010) and would not require a change to the existing underlying General Plan land use or zoning designations of any of the parcels affected by the Project; refer also to Table 1, Existing General Plan Land Use/Regional Category, and Table 2, Existing Zoning. On November 30, 2009, the Project Proponent received a determination of "No Hazard to Air Navigation" from the Federal Aviation Administration (FAA) for the two main Project properties, thereby indicating that the Project would not conflict with operations at the Airport. An amendment of the application has been submitted to include the transmission lines and substation modifications. Given their relative distance from the airport, no issues are expected. On February 4, 2010, the San Diego County Regional Airport Authority, Airport Land Use Commission voted unanimously that the Project would be consistent with the Borrego Valley Airport Land Use Compatibility Plan. In addition, EE Borrego Land, LLC, has received a letter from the County of San Diego Department of Public Works, Division of Airports, indicating that the solar PV farm would be considered to be a use compatible with aviation activities conducted at the Airport. In

addition, the entirety of the parcel encumbered by Major Use Permit 09-012 (APN 141-230-26) will be subject to the restrictions and terms of a County avigation easement.

Existing land uses in the area surrounding the two main parcels are generally either undeveloped/disturbed or support limited industrial or commercial land uses. No residential uses are present on lands immediately adjacent to either of the two parcels. Directly west of the Airport, lands are designated as Limited Impact Industrial on the County General Plan Land Use Map. In addition to the Airport, a number of other light industrial-type uses (General Impact Industrial and Limited Impact Industrial) are also present in the surrounding area, including a microwave tower, located adjacent to the southwest corner of the 288-acre parcel, and a commercial sand and gravel yard, located just north of Palm Canyon Drive. A large-scale commercial nursery is currently in operation directly to the west of the 288-acre parcel. In addition, an existing utility easement runs just north of the 288-acre parcel and supports the operation of such facilities in the area (i.e., Borrego Substation). There are also existing aboveground transmission lines (pole-mounted) along Palm Canyon Drive and Borrego Valley Road.

Based on the above discussion, the solar PV farm represents a land use that would be consistent with the County General Plan. Furthermore, the facilities would be compatible with the ongoing operation of the Borrego Valley Airport and other land uses present in the surrounding area.

General Plan land use designations and zoning for the affected parcels are given in Tables 1 and 2, below. No changes to either the existing General Plan land use or zoning are proposed with the Project.

Table 1
Existing General Plan Land Use / Regional Category

Assessor Parcel Number	Approximate Acreage	General Plan Land Use Designation	Regional Category
141-230-26	288	(18) Multiple Rural Use	Rural Development Area (RDA)
141-230-33	104*	(18) Multiple Rural Use	Country Town (CT)
141-210-01 (Borrego Substation)	5	(18) Multiple Rural Use	Rural Development Area (RDA)

* The Project would be limited to 53 acres of the 104-acre parcel.

Table 2
Existing Zoning

Assessor Parcel Number	Approximate Acreage	Zoning
141-230-26	288	General Rural Use (S92)
141-230-33	104*	Rural Residential (RR.25)
141-210-01 (Borrego Substation)	5	General Rural Use (S92)

* The Project would be limited to 53 acres of the 104-acre parcel.

DESCRIPTION OF ACTIVITIES

The Project would involve the construction of a solar energy electrical generation facility to provide electricity for public consumption. The proposed facilities would have an overall capacity of 35-40 MWs, a portion of which will serve the Borrego Valley area, with the remaining electricity being distributed elsewhere. The Project would consist of solar generation facilities on the 288-acre parcel and 53-acre-lease parcel. Each facility would consist of an array of solar PV panels, supported on a galvanized metal racking system; refer to Figures 3A and 3B, Major Use Permit Plot Plan, and Figure 3C, Major Use Permit Plot Plan – Elevations/Details. A number of solar panels may also be installed on the 53-acre-lease parcel to provide electricity directly to the Borrego Valley Airport. These panels would be directly connected to the Airport electrical system if their installation was economically and technically viable. Associated improvements would also occur adjacent to the existing Borrego Substation to facilitate transmission of the energy produced.

The photovoltaic panels would be manufactured at an offsite location and transported to the Project site. ~~The panels would be made of a thin-film amorphous silicon material covering a glass pane and would be black in color and highly absorptive.~~ All panels would be solar glass with an anti-reflective (AR) coating to minimize the potential for glare and/or reflection of sunlight and would be black in color and highly absorptive. The panels would not contain cadmium or cadmium compounds.

The arrays would be oriented along an east-west axis with the panels facing generally to the south. The panels would be ~~racks,~~rack mounted in a two-panel system (one panel mounted above a second panel), measuring approximately 10 to 14 feet in total combined width; refer to Figure 3C, Major Use Permit Plot Plan – Elevations/Details. ~~As such, the~~The total height of the two-panel system measured from ground surface would be approximately eight to ten feet. ~~It should be noted that a three-panel system may be utilized for the Project. Project design will be determined d~~During final engineering and design, a two- or three-panel design may be used depending upon the availability of panels within the market. The height of the panels would be determined during final engineering and would also be based on the design requirements of the Borrego Valley Management Plan design and construction criteria. The distance from the ground to the top of the panel system would not exceed a maximum height of 10 feet. The panels would be tilted at an approximate 30-degree

angle, or as otherwise determined necessary during final Project design, and would therefore be fixed and non-tracking.

The length of each row of panels would be approximately 300 feet along the east/west axis. Beam separation along the row would range from approximately 8 to 14 feet. Spacing between each row along the vertical axis would be approximately 19 to 24 feet center to center. The ultimate arrangement/number of PV solar panels, spacing of supporting racks, and rack pilings are shown in Figures 3B and 3C to illustrate the general configuration of the proposed solar collection system and are subject to modification at final engineering design. A north-south running access road, of minimum 24-foot width and unsurfaced, would be provided approximately every 300 feet between the horizontal rows (approximately 150 feet to either side), per design requirements of the Borrego Springs Fire Protection District.

Racking

Racking refers to the structure that holds the solar PV panels in the proper position for maximum capture of solar energy. For the Project, a combination of galvanized I-beam steel posts or tubular steel posts and channel steel would be used.

Panel Interconnections, Inverters, Distributed Transformers and Switch Gear

Panel arrays would be electrically connected into panel strings using wiring attached to the racking. Panel strings would be electrically connected to each other via underground wiring. Wire depths would be in accordance with local, State, and Federal codes. Gathering lines would connect individual panel array strings to one or more inverters/transformers and combiner boxes. Wiring from the panel strings would be connected to combiner boxes. Electrical current would then be transferred to the inverters which would convert the Direct Current (DC) produced by the PV panels into Alternating Current (AC). A pad-mounted transformer next to the inverter would increase the voltage. The AC would then travel through underground gathering lines to a common utility interconnection point or Project substations.

Project Substations and System Interconnection Points

The Project design includes construction of two onsite substations; refer to Figures 3A and 3B, Major Use Permit Plot Plan. One substation would be located in the northwest corner of the 288-acre parcel. A second substation is proposed at the northwest corner of the 53-acre lease parcel (APN 141-230-33).

The proposed substations would include transformers, breakers, switches, meters, and related equipment. Each substation would also contain a control room approximately 12 by 20 feet with an overall height of less than 15 feet. The overall footprint of each Project substation would be approximately 150 feet by 90 feet, with various supporting equipment installed within this footprint. Overall height of the substations would be approximately 35 feet in height at the apex.

Inverter Enclosures

Approximately 38 small-scale, aboveground structures would be constructed within the solar panel fields to weatherize inverter/distributer transformers and switching gear. These structures would be approximately 12 feet by 26.5 feet in size, and 12 feet in height at the apex, and constructed on a level concrete building pad; refer to Figure 3C, Major Use Permit Plot Plan – Elevations/Details. The structures would be constructed of non-flammable materials (i.e., steel) with a metal roof. Each structure would be designed with screened ventilation provided on the roof to allow for the circulation of air for cooling purposes. The AC generated would be transferred from the inverters via underground gathering lines to the Project substations.

Transmission Facilities

Two options are available for transferring the energy generated from the solar energy facility. The northern transmission route would be constructed within an existing 20-foot SDG&E-owned utility right-of-way which extends from the Borrego Substation eastward to the 288-acre parcel and a 200-foot arc. The southern transmission route would run south underground from the 53-acre lease parcel to an existing transmission line located along Palm Canyon Drive. The route would then travel west aboveground to Borrego Valley Road, then north to the existing Borrego Substation; refer also to Figure 2, Aerial Photograph, and to the MUP Plot Plan, Sheet One.

Northern Transmission Route

For the northern transmission route, one new 69kV and one new 12 kV transmission line would be installed within an existing 20-foot SDG&E utility right-of-way easement that runs along the southern boundary of several adjacent parcels to the west (Sections 26 and 27) and includes a 200-foot arc of land extending southwest from the intersection of Sections 26, 27, 34, and 35. The 12kV line would run underneath the 69 kV line. The poles would be approximately 50 feet in height and spaced approximately 250 feet apart. The transmission lines would extend westward aboveground for approximately one mile from the Project substation on the 288-acre parcel to the Borrego Substation. Selection of the northerly transmission route would require the applicant to obtain easement agreements from SDG&E and/or the property owners of the adjacent lands.

Pole installation for the northern route would be accomplished by advancement of holes into the soil using a truck-mounted auger. Poles would then be raised to the vertical position and lowered into place. Alternatively, cement foundations would be installed and steel poles would be permanently affixed to the cement foundations.

Stringing of the conductor (wires) would be accomplished by first attaching rollers to the lower end of the pole insulators. The rollers would allow the individual conductors to be pulled through each structure until the conductors are ready to be pulled to the final tension position. Crews would access each pole by pick-up truck and/or bucket truck along the easement right-of-way. Lay down areas for equipment would be identified prior to commencing construction activities to ensure that no unplanned grading or vegetation removal is required. Conductor pull and tension sites would be

located at both the Project site and the Borrego Substation. The pull and tension sites would be approximately 40 feet wide by 100 feet long.

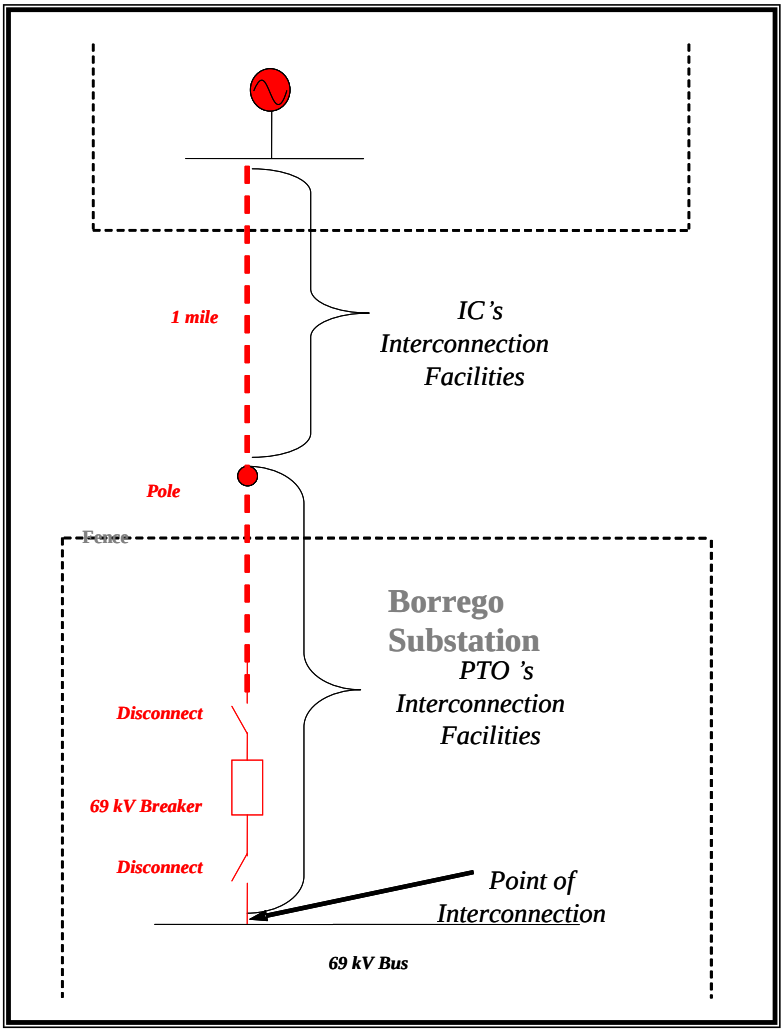
After the conductors are pulled into place, wire or conductor sags would be adjusted to a pre-calculated level. Vibration dampers and other accessories would then be installed, as needed. Conductors would be transported to the Project site via reel trailers with reel stands.

Northern Transmission Line Ownership

Selection of the northern transmission route would require the applicant to obtain easement agreements from SDG&E and/or the property owners of the adjacent lands. The "interconnection facilities" are defined as the facilities and equipment owned, controlled, or operated by SDG&E from the Point of Interconnection to the Point of Change of Ownership; refer to Diagram A, below. The Point of Interconnection would occur at the 69 kV bus in the Borrego Substation and the existing 12kV rack (busbar). All Project-installed transmission facilities would be under the ownership of SDG&E.

As the transmission facilities along the northern route would not be under the ownership of EE Borrego Land, LLC, as they are not considered as part of the MUP application; however, the lands affected by the proposed transmission facilities along the northern route must be included in the environmental analysis conducted for the Project to address potential impacts and provide mitigation, as appropriate, consistent with CEQA requirements.

DIAGRAM A: INTERCONNECTION FACILITIES – SCHEMATIC LAYOUT



Southern Transmission Route

For the southern transmission route, one new 69kV line and one new 12 kV transmission line would be installed underground within an easement running from the proposed substation on the 53-acre-lease parcel southward approximately 0.25 mile to Palm Canyon Drive. The easement would be located west of the Borrego Valley Airport Building Restriction Line (BRL). The lines would then run west aboveground for approximately one mile to the intersection of Palm Canyon Drive and Borrego Valley Road. The 69 kV line would be installed on top of the existing poles, with the existing 12 kV line and the new 12 kV line installed underneath. To accommodate these lines, the existing poles along Palm Canyon Drive would be removed and replaced with new poles approximately 45 feet in height. Spacing of the new poles would remain similar to that which presently exists (approximately 235 feet apart).

From the intersection of Palm Canyon Drive and Borrego Valley Road, the lines would then run north along the east side of Borrego Valley Road for approximately one mile to the Borrego

Substation where a connection to the existing facilities would occur. To accommodate the new transmission lines, the existing poles (approximately 40 feet in height) would be extended five feet. The poles would then support the new 69 kV and 12 kV lines associated with the Project, along with the existing 69 kV line and two 12 kV lines that are present. The existing poles along Borrego Valley Road are spaced approximately 170 feet apart.

Pole installation for the southern transmission route would be accomplished by using methods similar to those used for the northern route. Trenching would be required to underground the transmission lines from the 53-acre lease parcel to Palm Canyon Drive. The aboveground portion of the transmission route along Palm Canyon Drive and Borrego Valley Road would require installation of new poles immediately next to the existing poles which would then be removed.

Stringing and pulling of the conductor would occur in a manner similar to that described above for the northern transmission route. Lay down areas for equipment would be identified prior to commencing construction activities to ensure that no unplanned disturbance or vegetation removal is required.

Southern Transmission Line Ownership

Similar to the transmission facilities along the northern route, the offsite transmission facilities along the southern transmission route would be owned by SDG&E. As such, these facilities would not be under the ownership of EE Borrego Land, LLC, or its affiliates and are therefore not considered as part of the MUP application; however, the lands affected by the proposed transmission facilities along the southern route have been included in the environmental analysis conducted for the Project to address potential impacts and provide mitigation, as appropriate, consistent with CEQA requirements.

Telecommunication Facilities

Telecommunication lines would be installed from the facility to the Borrego Substation to allow for supervisory control and data acquisition (SCADA) between the Borrego Valley Substation and the Project. Telecommunication lines would also be placed underground southwards to access which telecommunication lines located along either Borrego Valley Road or Palm Canyon Drive to allow remote monitoring and communication.

The Project would also require up to four meteorological data collection systems, two for each point of interconnection. The systems would be mounted at various locations onsite and would collect data pertaining to global horizon irradiance, ambient temperature, PV back panel temperature, wind speed and direction, precipitation, barometric pressure, relative humidity, and visibility, among other information.

Improvements at the Existing Borrego Substation

The Project would require limited improvements at the existing Borrego Substation to allow for the transmission of electrical power. These improvements would occur within an approximately

0.82-acre expansion area (approximately 100-130 feet wide by 200 feet in length) to the south of the existing Borrego Substation facilities and adjacent to Borrego Valley Road; refer to Figure 3E, SDG&E Borrego Substation – Proposed Expansion Area.

Interconnection facilities to be installed with the Project within the expansion area include one steel pole (to be located outside of the Borrego Substation fence); conductor and insulators from the pole to a new 69kV termination rack (busbar) to be placed in the expansion area; two breakers; two disconnect switches; and, associated protection and control equipment for security purposes. An 8-foot chain-link fence topped with 3-strand barb wire would be installed along the perimeter of the expansion area. All fencing installed with the Project would be "breakaway" fencing to ensure that the fence gives way in the event of a flood, thereby eliminating potential obstruction of the flow of floodwaters and associated debris.

Substation Ownership

The Borrego Valley Substation is presently owned and operated by SDG&E. All modifications to the Substation would be owned by SDG&E, and the offsite transmission facilities along the southern transmission route would be owned by SDG&E, as noted above. As such, these facilities would not be under the ownership of EE Borrego Land, LLC, or its affiliates, and are therefore not considered as part of the MUP application; however, construction and operation of the proposed transmission facilities have been included in the CEQA analysis.

Grading

As stated above, the solar PV panels would be installed in an east-west orientation in parallel rows; refer to Figure 3D, Typical PV Solar Layout. Although the majority of land surface on the two affected parcels is generally flat, limited portions of the 288-acre parcel and the 53-acre lease parcel would be graded to provide a ground surface that can adequately accommodate the PV solar panels. Grading on these two parcels would require an estimated 107,000 c.y. balanced cut and fill. The remainder of these two parcels would be cleared and grubbed to allow for installation of the panels and associated facilities.

Limited clearing and grubbing would be required for the expansion area at the Borrego Substation site. Grading is estimated to range between approximately 300 to 800 c.y. of balanced cut and fill over the 0.82-acre area to create a level building pad for installation of the proposed facilities. Variation in grading quantities for the expansion area is due to whether the facilities would be constructed on a building platform raised on piers, or on the ground surface (building pad one foot above 100-year flood line).

In order to control potential dust and erosion during the life of the Project, a non-toxic, biodegradable ~~agent or~~ permeable soil-binding agent or permeable rock material will be applied to all disturbed or exposed surface areas as follows: a) A permeable soil-binding agent suitable for both traffic and non-traffic areas shall be used. These agents shall be biodegradable, eco-safe, with

liquid copolymers that stabilize and solidify soils or aggregates and facilitate dust suppression; or, b) Alternatively, a permeable rock material consisting of either river stone decomposed granite or gravel could be placed in a thin cover over all exposed surface area in-lieu of the binding agent referenced above. In-lieu of, or in combination with a) and b) above, the areas located between the arrays, and any non-drivable surface may be revegetated with native noninvasive plant species. The soil-binding agent would be reapplied approximately every two years for maintenance purposes. ~~The binding agents would be suitable for both traffic and non-traffic areas. Binding agents such as PolyPavement require a single initial application and periodic maintenance every 2-3 years. These agents are biodegradable, eco-safe, liquid copolymers that stabilize and solidify soils or aggregates and facilitate dust suppression. Once applied to the soil, the copolymer molecules coalesce forming bonds between the soil particles. These materials are commonly used on non-paved service roads, golf course paths, dirt bike tracks, helicopter landing areas, etc. Alternatively, a permeable rock material consisting of either river stone, decomposed granite, or gravel would be placed in a thin cover over all exposed surface areas for the purposes of dust and erosion control.~~

To minimize potential criteria pollutant emissions [particulate matter (PM_{10})] generated during Project grading operations, mitigation measures would be implemented. Such measures would be consistent with County of San Diego requirements and with the Air Quality Analysis prepared by LDN Consulting, Inc. (prepared June 2010; revised September 2010). These measures include the following: 1) application of water or other County-approved dust control suppression substances to onsite graded areas three times per day; 2) application of water to all onsite roadways three times per day; and, 3) reduce all construction-related traffic onsite to speeds below 15 miles per hour (mph). The implementation of these measures would reduce potential impacts relative to PM^{10} generation to below a level of significance. ~~. All disturbed areas would be covered with gravel or County-approved soil binding agent to reduce dust once the Project is completed.~~

Lighting

Limited Project lighting would be installed to allow for ongoing maintenance and security. Low-level lighting would be installed at the substations and at the main entry gate to the 53-acre-lease parcel. Lighting would be placed on poles of 15 feet or less in height or attached directly onto the exterior wall of the structure and would be 200 watts or less (total combined per each location). Low-level lighting would also be installed at the main entry gate to the expansion area to facilitate access.

All lighting would be operated manually or activated via motion sensors. All Project lighting would be shielded and directed downward to minimize the potential for glare or spillover onto adjacent ownerships and/or open space lands. All lighting would conform to County of San Diego outdoor lighting requirements.

Signage

Minimal Project signage is proposed to allow for the identification of the Project owner and for safety and security purposes. Signage is proposed to be installed on the fence in the vicinity of the main entry gates of the 53-acre-lease parcel. Signage would identify the Project operator and owner as EE Borrego Land, LLC, and would provide emergency contact information. All signage would conform to County of San Diego signage requirements for the applicable zone. No freestanding signage is proposed as part of the Project.

In addition, small-scale signage would be posted at the main entry gates, as well as intermittently along the perimeter fencing on all exterior parcel boundaries, to indicate "No Trespassing" and "Private Property" for security purposes (does not include the shared boundary between the southerly 53-acre-lease parcel and the northerly 288-acre parcel), as allowed by County regulations.

Access / Circulation

Construction Access

All materials for Project construction would be delivered to the sites by truck. The majority of truck traffic would occur on designated truck routes and/or major streets (i.e., Palm Canyon Drive and Borrego Valley Road). Traffic resulting from construction activities would be temporary and may occur along area roadways as workers and materials are transported to and from the Project area.

Long-Term Access

Long-term access to the 53-acre-lease/288-acre parcels would be provided from Palm Canyon Drive via an existing access road that extends north to the western boundary of the 53-acre-lease parcel. The Project applicant has entered into an Option to Lease and Access Agreement with the County of San Diego Department of Public Works (Airports) which will allow for long-term access rights across the Borrego Valley Airport property on an as-needed basis. Project-related vehicles will briefly cross the Airport Approach/Departure Zone to access the Project. The existing access road ranges from 12 to 16 feet in width and is surfaced with decomposed granite (d.g.). County Airports and the Borrego Springs Fire Protection District have indicated that the existing access road will provide adequate emergency access to the Project site, and no additional improvements are required or proposed. Interior access to the main Project site would be provided by a looped 24-foot wide perimeter road. This road would be surfaced with decomposed granite (d.g.) and would be maintained to provide a fire buffer as well as to facilitate onsite circulation for emergency vehicles. In addition, internal roadways, approximately 24 feet in width and unsurfaced, would be provided on the 53-acre lease parcel and 288-acre parcel along the north-south access, approximately every 300 feet between the east-west oriented rows of PV solar panels (approximately 150 feet to either side).

Borrego Valley Road runs adjacent to the west of the existing Borrego Substation. The roadway is a two-lane surfaced roadway and provides access to the east-west SDG&E transmission easement (northern transmission route). No improvements are proposed to Borrego Valley Road or to the existing easement to provide access to the proposed (future) transmission facilities.

Access to the proposed expansion area at Borrego Substation would be from Borrego Valley Road via the existing gravel driveway. A portion of the existing perimeter fencing would be removed along the southern boundary of the Borrego Substation facilities and a gate installed to provide access to the expansion area; refer to Figure 3E, SDG&E Borrego Substation – Proposed Expansion Area.

Trails

The Project design includes provision of one easement to allow for future construction of recreational trails, consistent with County requirements. Pursuant to the adopted Borrego Springs Community Trails and Pathway Plan, the Project proposes dedication of a 15-foot trail easement along the northern and western boundary of the 288-acre parcel to allow for future construction of a trail. The Project does not propose to provide improvements for trail construction at either of these locations at this time. In addition, the Project Proponent has received a letter from County Department of Parks and Recreation (dated November 18, 2009), indicating that no trail improvements or easement dedications are required within the Palm Canyon Drive right-of-way.

Operation, Security and Maintenance

The facilities would be monitored remotely by EE Borrego Land, LLC, or an affiliated company using facilities leased or purchased within the commercial district of Borrego Springs. Once the solar panels are installed, the panels would operate during daylight hours, seven days per week, and 365 days per year. Security would be maintained through installation of an 8-foot high chain-link fence that would include one foot of three-strand concertina wire along the perimeter of the 288-acre parcel, and the 53-acre-lease parcel. Infrared security cameras, motion detectors, and/or other similar technology, may also be installed to allow for monitoring of the site through review of live 24/7 footage. A security patrol would also be contracted by EE Borrego Land, LLC, or its affiliates for security purposes. Should the security system detect the presence of unauthorized personnel, a security representative would be dispatched to the facility, and appropriate local authorities would be notified.

It is anticipated that maintenance of the facilities would require the presence of two to five full-time workers under contract to EE Borrego Land, LLC, or an affiliated company, to perform visual inspections and minor repairs and provide tours once per week, on average. Overall, minimal maintenance requirements are anticipated, as the panels would operate on their own with little human involvement required. One storage shed, approximately 20 by 30 feet in size, would be constructed near the southwestern corner of the 288-acre parcel to allow for the onsite storage of maintenance equipment and supplies.

On intermittent occasions, the presence of several workers may be required if major repairs or replacement of equipment is required; however, due to the nature of the facilities, such actions are anticipated to be infrequent. Occasional equipment replacement or refurbishing may be conducted. Refurbishing activities are planned at periods of 5 to 10 years for the inverters/transformers. Refurbishment of the inverters and transformers would require approximately two days for a crew of four personnel, utilizing one or two utility vehicles.

To allow for ongoing maintenance of the solar panels, connection to the public water system is proposed. The Project would connect to an existing 10-inch water line in Palm Canyon Drive and would extend the line to the southwest corner of the 53-acre-lease parcel. A private line would then be extended within the interior of the site to the onsite storage building. This line would be used to fill the water trucks needed for periodic maintenance of the facilities.

An estimated 288,750 gallons (0.9 acre-feet) would be required every two years for maintenance activities related to dust suppression purposes. ~~It~~ In addition, it is anticipated that the solar PV panels would be washed ~~approximately 2~~up to four times per year to remove dust particles and other buildup to ensure optimum solar absorption. As such, the Project would result in a minimal demand for public water. An adequate water supply is available. Minimal amounts of water ~~(less than 800,000~~ [approximately 700,000 gallons per year (2.1 acre-feet), or the rough equivalent of ~~six~~ approximately five single-family homes~~)~~] would be used to clean the panels on an infrequent basis. Due to the highly absorptive nature of the surface and underlying soils, water would run off the surface of the panels and absorb quickly into the ground surface, avoiding runoff and soil erosion.

Panel cleaning would be conducted by EE Borrego Land, LLC, or its subsidiaries or subcontracted labor and would require an estimated four cleaning vehicles and associated crews. A team of 10 to 12 personnel would perform the required cleaning activities over an anticipated period of four weeks.

Table 3, Anticipated Maintenance Schedule, summarizes maintenance timing and activities for the Project.

Table 3
Anticipated Maintenance Schedule

Activity	Frequency
System Monitoring (Remote)	Continuous
Physical System Inspection	Daily to Individual Locations
Panel Cleaning	0 to ~~2~~ 4 Annually
Inverter Maintenance	Per Manufacturer's Specifications
Transformer Maintenance	Per Manufacturer's Specifications

Project Schedule / Phasing

The Project may be implemented in several phases. The sequence for development of the two parcels would largely be influenced by contractual agreements, and the interconnection between each of the phases and the existing and proposed transmission facilities at the time construction of each phase commences. With consideration for anticipated phasing of the Project, construction is expected to begin in the fall of 2010. The proposed facilities are expected to be operational in 2011.

It is anticipated that overall construction of the Project would take approximately 10 months to complete, with crews working six days per week, 10 or more hours per day. Up to 150 employees would be working onsite at the peak of construction. Local labor would be utilized to the extent possible. It is estimated that approximately 30% of the labor force may be obtained locally.

Depending on local permit requirements, some activities may occur during evening, night, and/or weekend hours, due to the scheduling of system outages and/or construction needs. Construction would commence following County of San Diego approval of permits and other entitlements, final engineering, and procurement activities.

Project Decommissioning and Reclamation

While the Project is anticipated to operate as a photovoltaic solar energy farm in perpetuity, it is possible that advances in technology or other factors might render the facility obsolete and inoperable. Should the facility cease to operate, the Project proponent shall commence decommissioning of the facility and reclamation of the land back to its current state. Decommissioning and reclamation of the facilities would consist of removal of all Project-related above-ground improvements on the properties and the reasonable restoration of the properties to a state that existed prior to Project development. Restoration would be completed within approximately 12 months and would include the following activities:

- *Removal of Above-Ground Improvements.* Above-ground equipment removal activities would begin with the removal of the photovoltaic panels and electrical wiring. This equipment would be resold or recycled or disposed of appropriately if a resale market is not available. Sharp USA and comparable panel manufactures currently implement a program for refurbishing modules that are viable for a "second life." At decommissioning, modules deemed worthy of refurbishment would be brought back to the factory for evaluation, cleaning & repair (as needed), re-testing, re-labeling, and re-packaging.

  The steel racking system would be removed and salvaged. Inverter/transformers and control buildings and substation components and interconnection equipment would be removed from the site and resold or salvaged. Perimeter and Project substation fencing gates and fence foundations, as well as all other above-ground improvements, would be removed.

- *Removal of Roads and Below Ground Improvements*. Aggregate and base material used in the construction of roads would be bladed, piled, and removed. Soils beneath the rock aggregate under onsite roadways would be de-compacted by ripping or plowing to depth of no greater than 15 inches. Building, inverter, and substation foundations would be removed to a depth of three feet below surface depth. Some sections of onsite roadways may be left undisturbed if requested by the landowner of the leased property.

- *Revegetation*. The disturbed areas affected by the Project would be reseeded with a native or non-invasive seed mixture approved by the County and in consultation with biologists or other appropriate organizations familiar with local biological resources.

Funding of Decommissioning. Nearly all of the system components including the panels, steel racks, inverters, transformers and related equipment would be sold for future service or as scrap. Revenues from these sales would partially pay for the restoration effort. A fund would be developed using revenues from the Project to cover restoration costs in excess of those generated by resale and recycling of the infrastructure components. The Project proponent would provide proof of a Letter of Credit in the amount of the account balance on a yearly basis until implementation of the Reclamation and Removal Plan is completed, or until the County determines that the conditions are otherwise met.

~~***Trails***~~

~~The Project design includes provision of one easement to allow for future construction of recreational trails, consistent with County requirements. Pursuant to the adopted Borrego Springs Community Trails and Pathway Plan, the Project proposes dedication of a 15-foot trail easement along the northern and western boundary of the 288-acre parcel to allow for future construction of a trail. The Project does not propose to provide improvements for trail construction at either of these locations at this time. In addition, the Project Proponent has received a letter from County Department of Parks and Recreation (dated November 18, 2009), indicating that no trail improvements or easement dedications are required within the Palm Canyon Drive right-of-way.~~

ANTICIPATED PERMITS AND AGENCY APPROVALS REQUIRED

The County of San Diego will act as the Lead Agency under the requirements of the California Environmental Quality Act (CEQA). Approval from the County of San Diego would be required for grading and construction permits, as well as for right-of-way encroachment permits, if applicable, prior to commencement of ground-disturbing activities. The anticipated permits and approvals required are listed in Table 4 in the general order in which they would be obtained.

Table 4
Approvals and Permits Anticipated

Permit/Approval	Approving Agency
Major Use Permit(s)	County of San Diego – Department of Planning and Land Use
Grading Permit(s)	County of San Diego – Department of Public Works
Federal Aviation Administration (FAA) Form 7460-1 Notice of Proposed Construction or Alteration Permit	Federal Aviation Administration – Received
General Construction Storm Water Permit	San Diego Regional Water Quality Control Board (RWQCB)

In addition to the above County approvals, the California Public Utilities Commission (CPUC) has the permitting authority for expansion and/or construction of substations and for the new construction and reconductoring of utility-owned transmission lines. The CPUC would rely on San Diego County's environmental analysis prepared for the proposed Project to comply with CEQA requirements in its review and approval of the expansion of the Borrego Substation, and associated construction and reconductoring of the utility-owned facilities. This includes facilities to be constructed by others and deeded to SDG&E (northern or southern route transmission line and modifications to the Borrego Substation). If modification and/or construction of SDG&E facilities are not included in the larger Project's CEQA review, SDG&E may need to seek approval from the CPUC and receive a Permit to Construct in order to construct the proposed transmission and Substation facilities.

PUBLIC UTILITIES AND SERVICES

Public Utilities

Water

The following provides a summary of the anticipated water consumption for both the operational and construction phases of the Project, including expansion of the substation.

Construction

As previously stated, Project construction is anticipated to occur over a 10-month period. Initial construction occurring within the first nine weeks (54 working days) would include brushing/clearing and grading/onsite access road construction. The remainder of the 10-month construction period (an estimated 304 days) would include foundation construction and panel installation, which would involve concrete hydration and application of the non-toxic pervious soil-binding agent. A permeable soil-binding agent would be applied during construction to stabilize the disturbed soils to reduce fugitive dust. Water estimates have been calculated for each of these activities to determine overall water demand for the construction phase. As shown in Table 5,

Total Estimated Water for Temporary Project Construction, total water demand for the construction phase is estimated to be 5,166,416 gallons, or 15.88 acre-feet (AF).

Table 5
Total Estimated Water for Temporary Project Construction

Activity	Timeframe	Total Estimated Water Demand (gallons and acre-feet)
Brushing and Clearing	Day 1- 54 (Weeks 1-9)	1,360,000 gallons / (4.17 AF)
Grading and Access Road Construction	Day 1- 54 (Weeks 1-9)	3,210,000 gallons / (9.85 AF)
Application of Soil Binding Agent	Day 1- 54 (Weeks 1-9)	577,500 gal / (1.8 AF)
Concrete Hydration	Day 54 through day 304 (Weeks 10-44)	18,916 gal / (0.06 AF)
Total Construction Water		**5,166,416 gal (15.88 AF)[1]**

[1] One acre-foot (AF) = 325,851 gallons.

A detailed analysis was conducted to determine the quantity of water needed for each of the above activities during the construction phase. Tables 6 through 10 provide a breakdown for how water demand was calculated for each activity.

Table 6
Brushing and Clearing Day 1 through 54 (Weeks 1-9)

Activity	Estimated Duration of Activity	Gallons of Water Required	Project Acreage to be Brushed/Cleared	Estimated Water Use
Brushing and Clearing	54 days[1]	4,000 gal/acre brushed	340	1,360,000 gal (4.17 AF)

[1] Assumes an estimated 54 working days for initial improvements (6 working days per week for 9 weeks), with approximately 6.5 acres brushed/cleared per day. Estimate of 6.5 acres brushed/cleared per day is consistent with assumptions made in the *Focused Air Quality Assessment* and *Noise Assessment* prepared by Ldn Consulting, Inc.

Table 7
Grading and Access Road Construction - Day 1 through 54 (Weeks 1-9)

Activity	Gallons of Water Required	Approx. Grading Quantities	Estimated Water Use
Grading and Onsite Access Road Construction	30 gal/cubic yard	107,000 cubic yards	3,210,000 gal (9.85 AF)

Table 8
Application of Soil Binding Agent – Day 1 through 54 (Weeks 1-9)

Activity	Gallons/Acre	Total Water Use/Year (in gallons and AF)
Application of Soil Binding Agent	3,300	577,500 (1.8 AF)

Table 9
Concrete Hydration - Day 54 through Day 304 (Weeks 10-44)

Activity	Inverter Stations	Substations	Fence Posts	Miscellaneous	Total
Quantity	40	10	5,000		
Number of Pilers per Station	10	4			
Total Number of Pilers	400	40	250		
Diameter (feet)	1.0	1.0			
Length (feet)	10.0	12.0			
Volume of Concrete (cubic yards)	465.42	55.85	9.26	100.0	630.5
Volume of Water (gallons)	**13,962.63**	**1,675.52**	**277.78**	**3,000.0**	**18,916 gallons (0.06 AF)**

Operation

The use of potable water is not required for long-term operation of the proposed facilities. The County Fire Marshal requires the installation of a fire hydrant at the southwesterly corner (entrance) of the 53-acre lease parcel. To allow for annual maintenance of the solar panels

(~~approximately 2~~washing up to four times per year), connection to the public water system via hose bib at the storage building is proposed. The Project would connect to an existing water line in Palm Canyon Drive and extend the line north along the access road serving the Project. A private water line would then extend onsite to the proposed storage shed on the 288-acre parcel; refer to Figure 3B, Major Use Permit Plot Plan. This line would provide water to fill the water trucks onsite at the time when maintenance activities are scheduled to occur.

The following describes the anticipated water usage for long-term operation of the proposed Project. Ongoing operation of the facilities would require water for panel washing and maintenance of the soil binding agent if utilized for dust suppression purposes. As shown in Table 10, *Ongoing Water Use Following Completion of Construction Phases*, total water demand for Project operation and maintenance is estimated to be 988,750 gallons, or 3.03 AF, per year.

Table 10
Ongoing Water Use Following Completion of Construction Phase

Activity	
Dust Suppression	
Number of gallons/acre (every 2 years)	1,650
Water use/year (in gallons)	288,750
Water use/year (in AF)	0.9
Panel Washing	
Washes/year	4.0
Panels/minute	5.0
Gallons per minute	2.5
# of panels	350,000
Total water use/year (in gallons)	700,000
Total water use/year (in AF)	2.1
Total Water Use/Year	**988,750 gal (3.03 AF)**[1]

[1] One acre-foot (AF) = 325,851 gallons.

Annualized Water Use

Based on the above estimations, total groundwater use for the Project would be approximately 16 acre-feet for construction, and approximately 87 acre-feet for post-construction uses over the 30-year life of the Project. This would result in a total groundwater use over the 30-year life of the Project of approximately 103 acre-feet. By dividing the total groundwater use of 103 acre-feet by 30 years, it is estimated the Project would require approximately 3.5 acre-feet on an annualized basis.

To ensure groundwater impacts are adequately mitigated, the Major Use Permit would be conditioned to have a maximum allowable groundwater use for the Project. The maximum amount allowed was increased by about 10% to take into account any inaccuracies within the water demand calculations or unanticipated circumstances not accounted for where additional water may be needed. A maximum of 17.5 acre-feet of groundwater would be allowed during the construction phase of the Project. A maximum groundwater use of 3.5 acre-feet per year would be allowed for solar panel washings and ongoing dust suppression activities during the remaining 29 years of the permit. This would result in a maximum allowable groundwater use of 119 acre-feet during the life of the Project. The applicant would be required to provide the County its yearly water bill from the Borrego Water District to ensure the Project stays within its maximum allowable use.

The Project would also be required to implement offsetting groundwater use reduction measures that save an amount of water at least equivalent to the Project's demand amount (conservatively estimated at four acre-feet per year), elsewhere in Borrego Valley such that there is a "no net gain" in the overall groundwater extraction in Borrego Valley. The applicant will ensure that there is "no net gain" by recording an easement on offsite land that has been continuously used for agriculture or golf course purposes for at least the past five years and is being irrigated with at least four acre-feet of groundwater annually from the Borrego Valley groundwater aquifer. The easement will be granted to the County and will permanently prohibit the use, extraction, storage, distribution, or diversion of water from the Borrego Valley groundwater aquifer on land subject to the easement. Based on a maximum allowable water use of 119 acre-feet, the Project would use a maximum of approximately four acre-feet on an annualized basis over the 30-year life of the permit. With the inclusion of a condition to ensure water use for the Project does not exceed its maximum projected use, and through a legally enforceable mechanism to offset its water use, the Project would not have a significant adverse effect on groundwater resources.

Storm Water / Drainage

A significant increase in storm water runoff or treatment needs from the areas affected by the Project is not anticipated to occur. Storm water runoff in areas where facilities would be installed would remain generally unchanged following construction. In addition, the solar panels and supporting structures would occupy a minimal building footprint on the affected properties and would not require or result in a significant change in existing conditions with regard to storm water runoff or treatment needs. As applicable, storm water runoff and treatment would be adequately handled through the implementation of onsite best management practices (BMPs) and/or other design measures and would not result in or require significant changes to existing offsite storm drain facilities.

Solid Waste

Due to the nature of the Project, the need for solid waste disposal service is not anticipated, with the exception of disposal of minimal amounts of debris during construction, as the panels would be

assembled prior to being delivered to the site. Allied Waste Services is the community's franchise hauler for refuse, recycling and green waste materials. Any construction debris would be transported to the Borrego Springs Landfill, located at 2449 Palm Canyon Drive, approximately 0.9 miles to the southeast of the southeast corner of the 53-acre-lease parcel. The Landfill has adequate capacity to accept the limited solid waste that may be generated by construction and/or operation and maintenance of the Project facilities.

Public Services

Fire Protection Services

The areas affected by the Project would be served by the Borrego Springs Fire Protection District (BSFPD). The District covers approximately 305 square miles and is served from one station, located at 2324 Stirrup Road in Borrego Springs, approximately 2.4 miles northwest of the southwest corner of the 53-acre-lease parcel. The Project is not expected to increase the need for fire protection services or staff in the area served by the BFSPD.

The Project sites are located within the County's Wildland Urban Interface area. As such, Project design provides for a 30-foot wide brush clearing zone (measured inward from perimeter of property boundary) on the 288-acre parcel and 53-acre-lease parcel to reduce the potential for wildfire to occur and/or spread (does not include the shared boundary between the two parcels). In addition, a fire hydrant would be installed at the southwesterly corner (entrance) of the 53-acre lease parcel.

As requested by the County Department of Planning and Land Use, the applicant has prepared a Fire Protection Plan (FPP) Letter Report to address water supply, access, building ignition and fire resistance, fire protection systems and equipment and vegetation management with regard to fire code requirements. The FPP Letter Report shall meet all requirements of Article 86, Section 8601of the California Fire Code.

Law Enforcement

The lands affected by the Project would be served by the County of San Diego Sheriff's Department from its station located at 571 Palm Canyon Drive in Borrego Springs, approximately 2.9 miles to the southwest of the southwest corner of the 53-acre-lease parcel. As previously stated, the affected properties would be monitored remotely by EE Borrego Land, LLC, or an affiliated company, thereby reducing the potential for trespassers or vandals to access the sites and decreasing the overall need for intervention by law enforcement officers.

Due to the nature of the Project, operation of the proposed facilities is not expected to result in a significant increase in demand for other public utilities or services such as electricity, sewer service, schools, recreational facilities, or other services (i.e., libraries, social services, etc.). No residential, commercial, industrial, or other land uses that would potentially generate a demand for additional water or wastewater treatment services are proposed as part of the Project.

TRAFFIC / CIRCULATION

A temporary minor increase in traffic may occur along area roadways during the construction phase, as workers and materials are transported to and from the affected sites. Approximately 30 construction vehicles trips per day on average are anticipated to take place during Project construction, with up to a total of 3,000 construction vehicle trips anticipated to occur during the entire construction period; however, traffic generated by Project construction activities is not expected to cause a significant short-term increase in area traffic volumes, due to the nature and scope of the construction activities required (i.e., limited grading, delivery of pre-constructed panels to the sites, etc.). With the exception of installation of new utility poles or alteration of existing poles along Palm Canyon Drive and/or Borrego Valley Road, all Project construction activities would occur onsite, thereby minimizing potential conflicts with or interruption of area traffic flow or vehicular circulation.

In addition, long-term operation of the facilities would not generate a substantial number of vehicle trips. It is estimated that two employees (one maintenance vehicle) would visit the site on a daily basis for inspection and maintenance purposes, or as otherwise needed. This represents a vehicle trip generation rate of two average daily trips (ADT) for Project traffic (one vehicle making one daily trip to and from the site, or two overall trips per day, seven days per week). As such, traffic generated by long-term operation of the facilities is not anticipated to exceed, either individually or cumulatively, a level of service standard established by the County of San Diego. In addition, on intermittent occasions, the presence of several workers may be required if major repairs or replacement of equipment is required; however, due to the nature of the facilities, such actions are anticipated to be infrequent.

Panel cleaning would also be conducted by EE Borrego Land, LLC, or its subsidiaries or subcontracted labor, and would require an estimated four vehicles and associated crews. A team of 10 to 12 personnel would perform the required cleaning activities over an anticipated period of four weeks. Panel-cleaning activities are anticipated to generate approximately 8 ADT [4 vehicles x 2 trips/day (to and from the site)] during the four week period. Therefore, each cleaning event would generate an estimated 160 vehicle trips total ([4 vehicles x 2 trips/day] x 5 days/week x 4 weeks), or a maximum of ~~320~~640 vehicle trips over a one-year period if the panels were washed ~~twice~~(up to) four times. Traffic generated by such activities would therefore be periodic and minimal and would not adversely affect circulation or contribute a significant number of vehicle trips along area roadways.

Construction of the facilities would be limited to improvements within the identified sites/alignments and adjacent roadway right-of-ways (ROWs) affected by the proposed transmission line alignments, and would not significantly affect area traffic patterns or create other substantial safety risks with regard to circulation. No roadway improvements are proposed as part of the Project, and no incompatible land uses that would increase traffic hazards or affect emergency access would occur with the Project.

Project traffic would not result in a change in air traffic patterns at the Borrego Valley Airport or cause substantial safety risks with regard to traffic as the result of access to and from the 53-acre-lease parcel and the 288-acre parcel across the Airport Approach Zone. Air traffic utilizing the Airport is sporadic. Access required to the properties during construction and/or for ongoing maintenance purposes would be intermittent, with a minimal number of vehicles crossing the area. The entirety of the parcel encumbered by MUP 09-012 (APN 141-230-26) will be subject to the restrictions and terms of a County avigation easement. All Project-related access and operational procedures would comply with applicable FAA safety regulations and County airport operation requirements. As previously stated, on November 30, 2009, the Project Proponent received a determination of "No Hazard to Air Navigation" from the FAA, thereby indicating that the Project would not conflict with operations at the Airport. In addition, the San Diego County Regional Airport Authority issued a consistency determination on March 2, 2010, stating that the proposed use would be consistent with the Borrego Valley Airport Land Use Compatibility Plan, and therefore, would not create hazardous conditions or conflicts with operation of the Borrego Valley Airport.

EXISTING CONDITIONS

ONSITE CONDITIONS

Solar Generation Facilities

The 288-acre parcel and 53-acre-lease parcel are presently undeveloped. Vegetation on these parcels largely consists of desert saltbush scrub and stabilized and partially stabilized desert dunes, with sparse groundcover consisting of a mixture of Mediterranean grass and mustard. Soil types found on the affected parcels also generally support bur-sage, saltbush, and annual grasses and forbs. Some native wildflower species occur intermittently, with a number of dead mesquite trees also present in various onsite locations on the parcels. Refer to Figures 4 to 6 which show the existing onsite and offsite conditions.

The Project area and the Borrego Valley in general are underlain by Quaternary alluvium. The vast majority of the Project area is mapped as Indio silt loam, 0 to 2 percent slopes; and Indio silt loam, saline, 0 to 2 percent slopes; with pockets of Rositas fine sand, 0 to 2 percent slopes; and Rositas fine sand, hummocky, 5 to 9 percent slopes.

The overall topography descends gradually from northwest to southeast across the region. Although the topography of the Project area is generally flat, there are a series of low dune ridges with hummocky areas throughout. Elevations on the 53-acre parcel generally range from approximately 519 to 538 feet above mean sea level (amsl) and approximately 529 feet amsl to 554 feet amsl on the 288-acre parcel.

There are no channels or indications of linear flow on the affected parcels, including in the lowest areas between the ridge-like dunes. No reliable sources of water occur within close proximity to the Project area. Coyote Creek is located to the east of the Project area.

The average January low temperature for the area is 38° Fahrenheit; the average July high temperature is 106° Fahrenheit. Average annual rainfall for the Borrego Springs area is approximately 6.3 inches.

Transmission and Borrego Substation Facilities

The proposed transmission routes would generally follow property boundaries, existing paved or unimproved dirt roads, and other areas where human activity has occurred. All routes would connect to existing SDG&E facilities or run within existing or proposed easements; refer to Figure 2, Aerial Photograph. These lands support similar vegetation as the 288-acre parcel and 53-acre-lease parcel, with generally level topography. The Borrego Valley Substation would be expanded south and eastwards to accommodate additional equipment proposed with the Project. The Substation land also supports similar vegetation with generally level topography, but has been greatly disturbed by human activity.

SURROUNDING LAND USES

The Project area is located in the Borrego Valley, which is in the desert region of northeastern San Diego County. The Anza-Borrego Desert area is part of the larger Colorado Desert. The Borrego Sink is located approximately four miles southeast of the Project area, and the Borrego Badlands are approximately five miles to the east.

The 53-acre-lease parcel is bordered on the north by the 288-acre parcel. To the north and east of these parcels is undeveloped land; to the south is the Borrego Valley Airport; to the west are a commercial palm nursery, and a small-scale commercial sand and gravel yard. A microwave tower is also adjacent to the southwest corner of the 288-acre parcel; refer to Figure 2, Aerial Photograph.

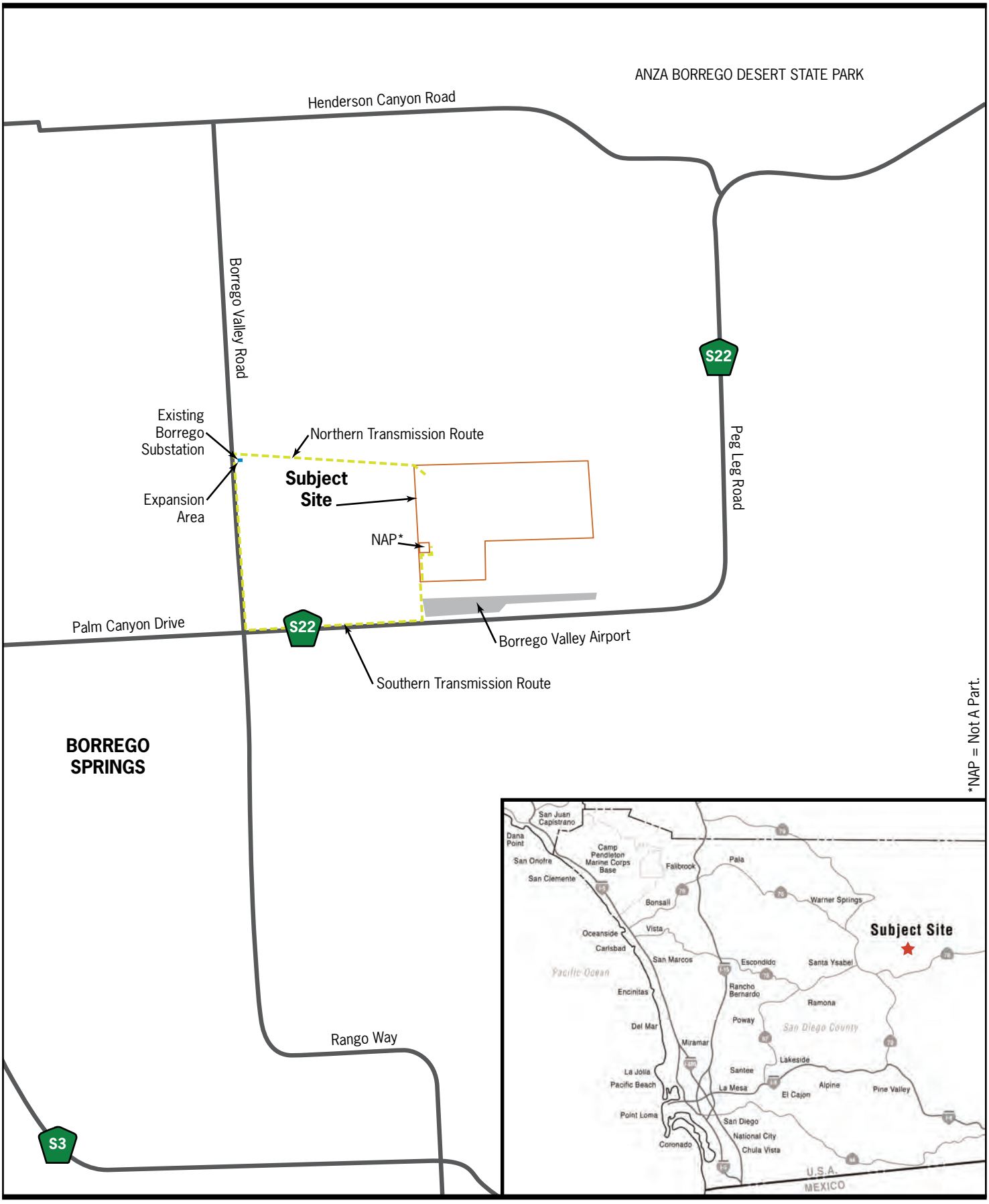
Land uses to the south across Palm Canyon Drive generally include undeveloped lands interspersed with industrial type and residential uses. Refer also to Table ~~5~~11, Lands Potentially Affected by the Project.

The Borrego Substation is bordered to the west by Borrego Valley Road. Immediately adjacent to the north, east, and south are undeveloped lands. Further to the southeast and south are several single-family homes with intervening undeveloped/unimproved lands. Further west, across Borrego Valley Road, are agricultural-related facilities, and to the northwest are active agricultural lands.

Table 11
Lands Potentially Affected by the Project

Assessor Parcel Number (APNs) Affected	Approx. Acreage (in acres)	General Location	Current Onsite Land Use / Characteristics	Surrounding Land Uses	Future Facilities Considered
141-230-26	288	North of Palm Canyon Drive	Undeveloped / Salt Brush Scrub Habitat	Large-scale agricultural use (nursery) to the west / Undeveloped	Solar Panels / Associated Transmission Facilities
141-230-33	104*	North of Palm Canyon Drive	Undeveloped / Salt Brush Scrub Habitat	Borrego Valley Airport to the south / Undeveloped	Solar Panels / Associated Transmission Facilities
Offsite Facilities					
141-210-01 Borrego Substation (Existing)	4.7 (includes 0.82-acre proposed expansion area)	North of Palm Canyon Drive / East of Borrego Valley Road	Borrego Substation / Undeveloped / Salt Brush Scrub Habitat	Two single-family residential uses to the south and southeast (40 acre parcels) / Limited agricultural uses to the southwest / Undeveloped	Transmission Facilities (Proposed Connection to Borrego Substation)

* The Project would be limited to 53 acres of the 104-acre parcel.



RBF CONSULTING

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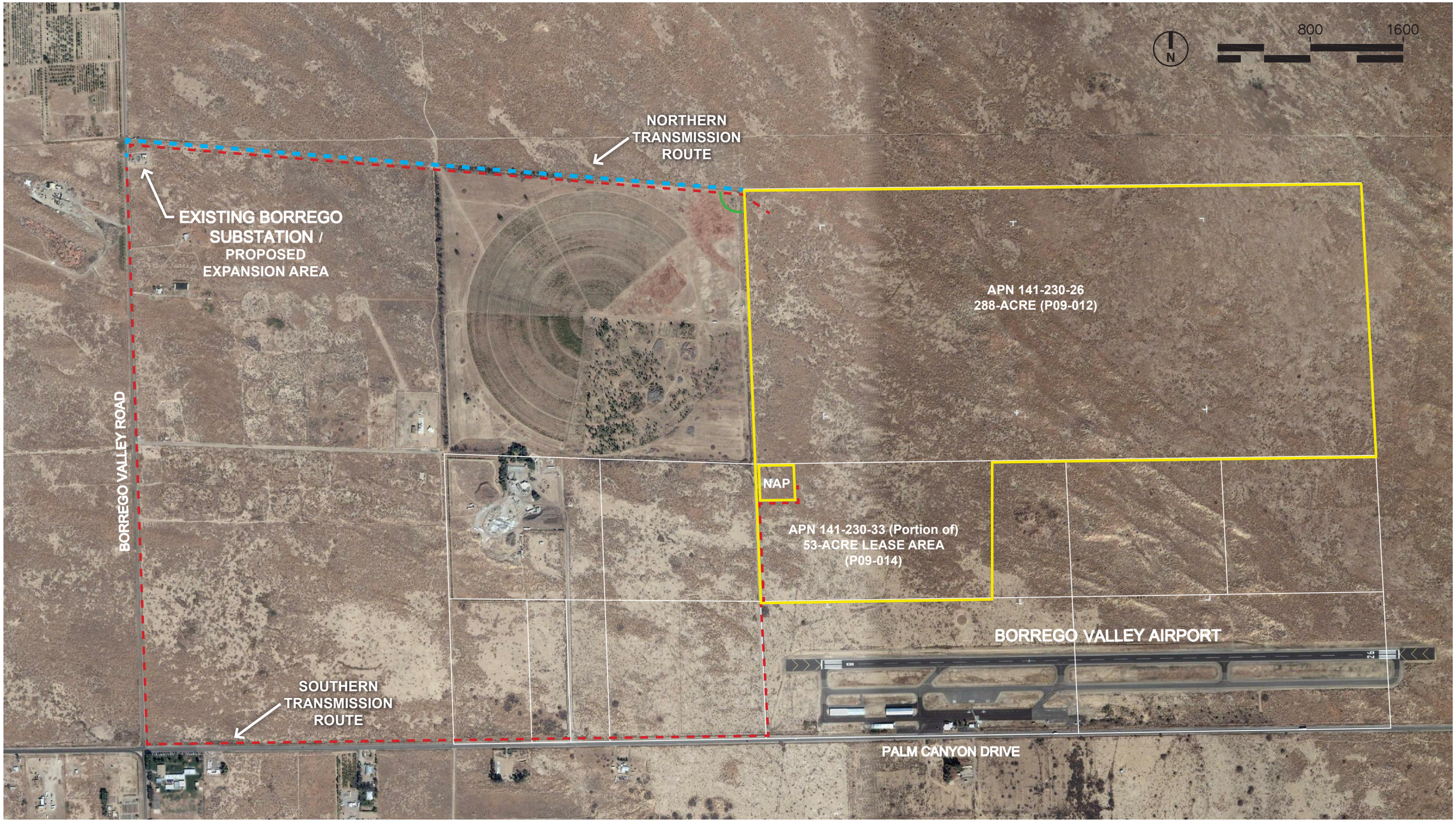
Not to Scale

Regional / Local Vicinity Map

Photovoltaic Solar Farm

Figure 1



Source: Eagle Aerial, 2008.

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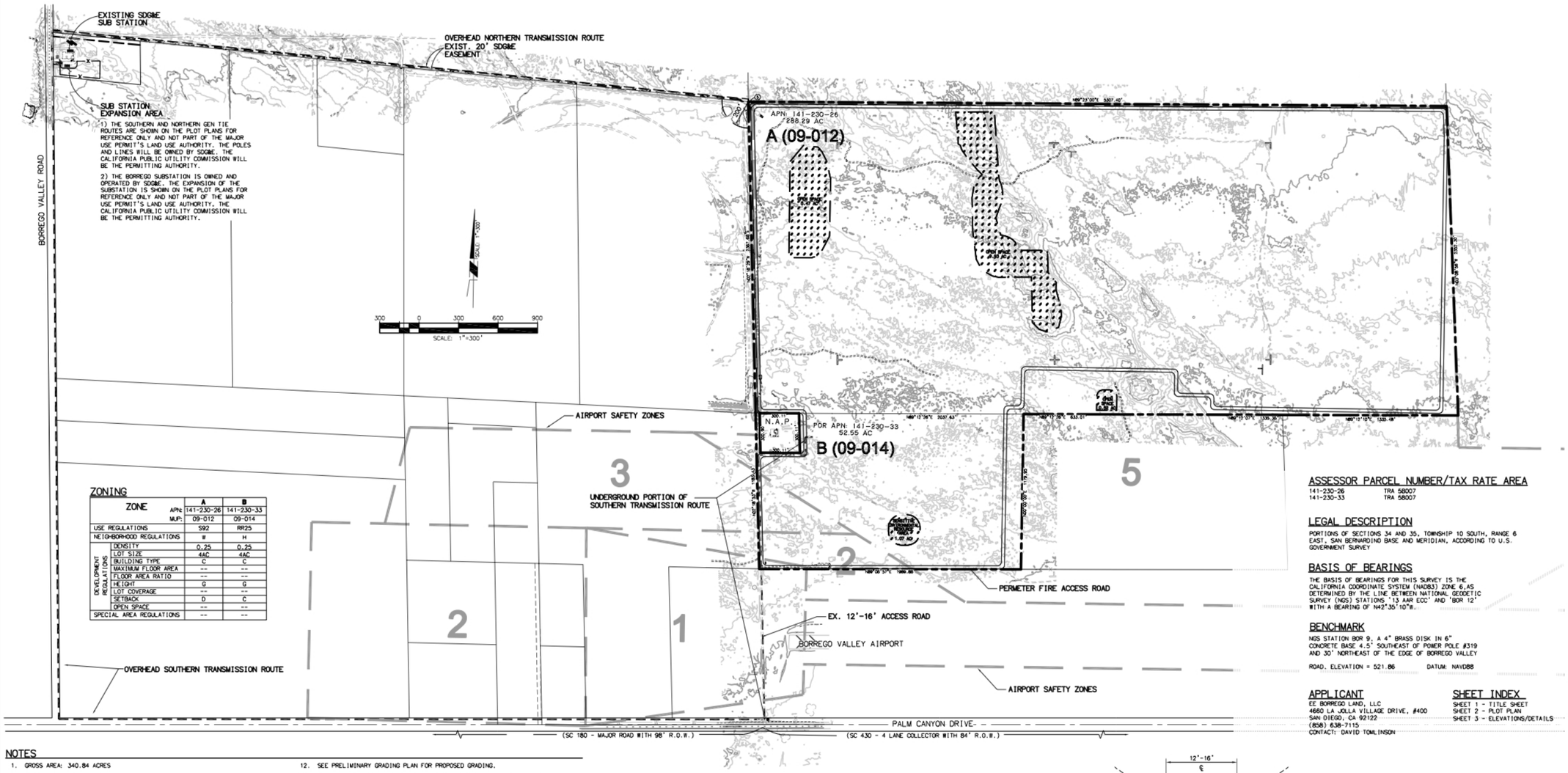
Proposed Transmission Route
Existing 20-foot SDG&E Utility Easement
200' Utility and Access Easement
NAP = Not A Part

Aerial Photograph

Photovoltaic Solar Farm

Figure 2



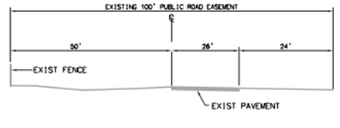
ZONING

ZONE		A	B
	APN:	141-230-26	141-230-33
	MUP:	09-012	09-014
USE REGULATIONS		S92	RR25
NEIGHBORHOOD REGULATIONS		W	H
DEVELOPMENT REGULATIONS	DENSITY	0.25	0.25
	LOT SIZE	4AC	4AC
	BUILDING TYPE	C	C
	MAXIMUM FLOOR AREA	--	--
	FLOOR AREA RATIO	--	--
	HEIGHT	G	G
	LOT COVERAGE	--	--
	SETBACK	D	C
	OPEN SPACE	--	--
SPECIAL AREA REGULATIONS		--	--

NOTES

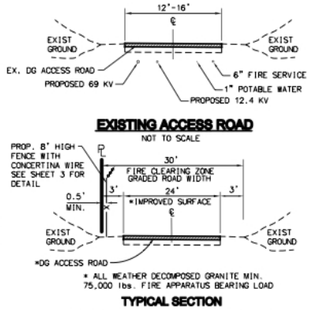
1. GROSS AREA: 340.84 ACRES
2. NET AREA: 338.55 ACRES
3. TOPOGRAPHIC SOURCE: VERTICAL MAPPING, FLOWN 5/8/09
4. ASSOCIATED REQUESTS: NONE
5. THE APPROVAL OF THIS MAJOR USE PERMIT (MUP) AUTHORIZES THE FOLLOWING: CONSTRUCTION, OPERATION, AND MAINTENANCE OF A PHOTOVOLTAIC SOLAR FARM PURSUIT TO SECTION 1350 AND 2185b, 2525a, 2925a, OF THE SAN DIEGO COUNTY ZONING ORDINANCE.
6. THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN VALID GRADING PERMISSIONS BEFORE COMMENCING SUCH ACTIVITY.
7. ALL BUILDINGS TO BE CONSTRUCTED OF NON-COMBUSTIBLE MATERIALS (CONCRETE, BLOCK, METAL) OR SIMILAR.
8. NO LANDSCAPING PROPOSED.
9. LIGHTING FOR MAINTENANCE AND SECURITY PROPOSES ONLY. SHIELDED LIGHTING LOCATED AT GATES AND SUBSTATION BUILDING AND SHALL CONFORM TO COUNTY OF SAN DIEGO OUTDOOR LIGHTING REQUIREMENTS. SEE DETAIL ON SHEET 3.
10. PHASING - PROJECT WILL BE IMPLEMENTED IN SEVERAL PHASES WITHOUT REGARD TO SEQUENCE.
11. ALL DISTRUBED AREAS WOULD BE COVERED WITH GRAVEL OR A BINDING AGENT TO REDUCE DUST.
12. SEE PRELIMINARY GRADING PLAN FOR PROPOSED GRADING.
13. NO SIGNAGE PROPOSED, EXCEPT FOR DIRECTIONAL AND SAFETY SIGNAGE.
14. NO DEVELOPMENT WILL OCCUR IN THE AREAS IDENTIFIED ON THE PLOT PLAN AS "UNDISTURBED AREA".
15. SEE SHEET 2 FOR LEGEND.
16. THE ENTIRE SITE IS SUBJECT TO INUNDATION BY THE 100-YEAR FLOOD AND IS WITHIN FEMA MAP NO. 06073C0675F THE LIMITS OF THE 100-YEAR FLOOD ALONG THE WATERCOURSE WHICH FLOWS THROUGH THE PROPERTY.
17. ALL SITE ACCESS GATES (2 EXISTING & 1 PROPOSED) TO BE EQUIPPED WITH FIRE DEPARTMENT APPROVED STROBE LIGHT ACTIVATION AND KNOX KEY-OPERATED SWITCH.
18. THE SOLAR RELATED FACILITIES (PANELS, RACKING, ELECTRICAL CONNECTIONS, INVERTER STRUCTURES, STORAGE BUILDING, SUBSTATION, CONTROL ROOMS, FENCING, AND INTERNAL ACCESS, ETC.) SHOWN ON THE PLOT PLAN MAY BE RELOCATED, RECONFIGURED, AND/OR RESIZED WITHIN SOLAR FACILITY DEVELOPMENT AREA (EXCLUSIVE OF THE OPEN SPACE AREAS) WITH THE ADMINISTRATIVE APPROVAL OF THE DIRECTOR OF DPLU WHEN FOUND IN CONFORMANCE WITH THE INTENT AND CONDITIONS OF PERMIT'S APPROVAL .
19. THE ENTIRETY OF THE PARCEL ENCUMBERED BY MUP 09-012 (APN 141-230-26-00) IS SUBJECT TO THE RESTRICTIONS AND TERMS OF A COUNTY AVIGATION EASEMENT.
20. TOTAL SOLAR PANEL HEIGHT WILL NOT EXCEED 10 FEET IN EITHER OF THE 2 OR 3 PANEL SYSTEM.

PROJECT SITE & SURROUNDINGS
SCALE: 1"=300'



TYPICAL SECTION
PALM CANYON DRIVE
NOT TO SCALE

TYPICAL SECTION
PERIMETER FIRE ACCESS ROAD
WITH TRAIL EASEMENT
NOT TO SCALE
*EASEMENT AREA TO BE CLEARED & GRUBBED ONLY FUTURE TRAIL IMPROVEMENTS BY OTHERS



EXISTING ACCESS ROAD
NOT TO SCALE

* ALL WEATHER DECOMPOSED GRANITE MIN. 75,000 lbs. FIRE APPARATUS BEARING LOAD

TYPICAL SECTION
PERIMETER FIRE ACCESS ROAD
NOT TO SCALE
*TYPICAL LOCATION UNLESS SHOWN OTHERWISE ON SITE PLAN

ASSESSOR PARCEL NUMBER/TAX RATE AREA

141-230-26	TRA 58007
141-230-33	TRA 58007

LEGAL DESCRIPTION

PORTIONS OF SECTIONS 34 AND 35, TOWNSHIP 10 SOUTH, RANGE 6 EAST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO U.S. GOVERNMENT SURVEY

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM (NAD83) ZONE 6,AS DETERMINED BY THE LINE BETWEEN NATIONAL GEODETIC SURVEY (NGS) STATIONS "13 AAR ECC" AND "BOR 12" WITH A BEARING OF N42°35'10"W.

BENCHMARK

NGS STATION BOR 9, A 4" BRASS DISK IN 6" CONCRETE BASE 4.5' SOUTHEAST OF POWER POLE #319 AND 30' NORTHEAST OF THE EDGE OF BORREGO VALLEY ROAD, ELEVATION = 521.86 DATUM: NAVD88

APPLICANT

EE BORREGO LAND, LLC
4660 LA JOLLA VILLAGE DRIVE, #400
SAN DIEGO, CA 92122
(858) 638-7115
CONTACT: DAVID TOMLINSON

SHEET INDEX

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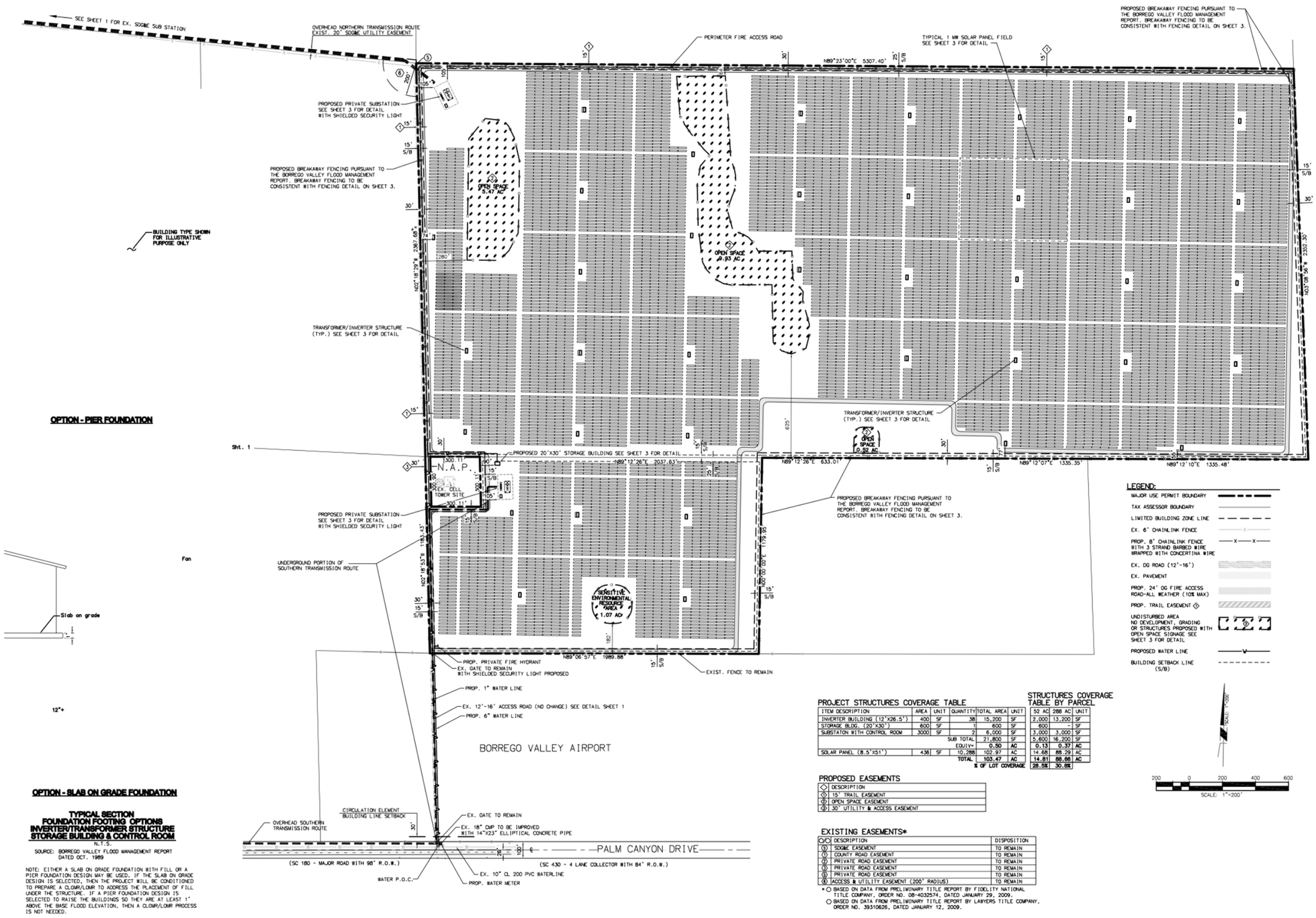
Major Use Permit Plot Plan

Photovoltaic Solar Farm

Figure 3A



PROJECT STRUCTURES COVERAGE TABLE

ITEM DESCRIPTION	AREA	UNIT	QUANTITY	TOTAL AREA	UNIT
INVERTER BUILDING (12'X26.5')	400	SF	38	15,200	SF
STORAGE BLDG. (20'X30')	600	SF	1	600	SF
SUBSTATION WITH CONTROL ROOM	3000	SF	2	6,000	SF
			SUB TOTAL	21,800	SF
			EQUIV=	0.50	AC
SOLAR PANEL (8.5'x51')	436	SF	10,288	102.97	AC
			TOTAL	103.47	AC
			% OF LOT COVERAGE		

STRUCTURES COVERAGE TABLE BY PARCEL

52 AC	288 AC	UNIT
2,000	13,200	SF
600	-	SF
3,000	3,000	SF
5,600	16,200	SF
0.13	0.37	AC
14.68	88.29	AC
14.81	88.66	AC
28.5%	30.8%	

PROPOSED EASEMENTS

	DESCRIPTION
1	15' TRAIL EASEMENT
2	OPEN SPACE EASEMENT
3	30' UTILITY & ACCESS EASEMENT

EXISTING EASEMENTS*

	DESCRIPTION	DISPOSITION
1	SDGE EASEMENT	TO REMAIN
2	COUNTY ROAD EASEMENT	TO REMAIN
3	PRIVATE ROAD EASEMENT	TO REMAIN
4	PRIVATE ROAD EASEMENT	TO REMAIN
5	PRIVATE ROAD EASEMENT	TO REMAIN
6	ACCESS & UTILITY EASEMENT (200' RADIUS)	TO REMAIN

* ○ BASED ON DATA FROM PRELIMINARY TITLE REPORT BY FIDELITY NATIONAL TITLE COMPANY, ORDER NO. 08-4032574, DATED JANUARY 29, 2009.
○ BASED ON DATA FROM PRELIMINARY TITLE REPORT BY LAWYERS TITLE COMPANY, ORDER NO. 39310626, DATED JANUARY 12, 2009.

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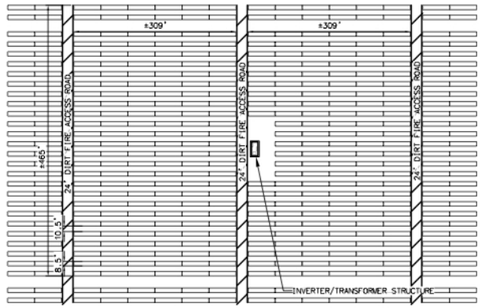
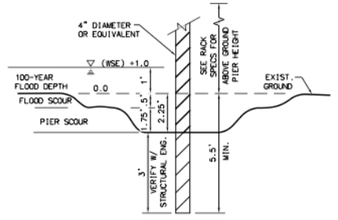
Major Use Permit Plot Plan

Photovoltaic Solar Farm

Figure 3B

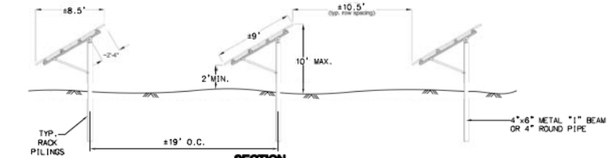


TYPICAL LAYOUT
SOLAR PANEL ARRAY FIELD
N.T.S.

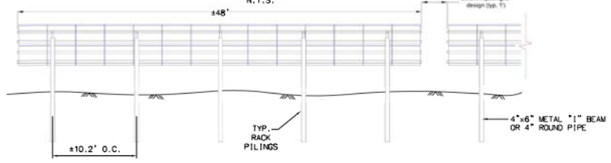


TYPICAL SECTION RACK PILINGS
N.T.S.

SOURCE: BORREGO VALLEY FLOOD MANAGEMENT REPORT DATED OCT. 1989

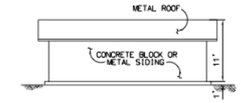


SECTION
SOLAR PANEL DETAIL
N.T.S.

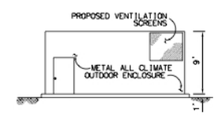


ELEVATION
SOLAR PANEL RACK DETAIL
N.T.S.

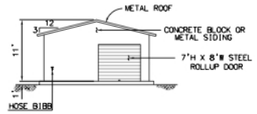
ARRANGEMENT/NUMBER OF PHOTOVOLTAIC PANELS, SPACING OF SUPPORTING RACKS AND RACK PILINGS ARE SHOWN TO ILLUSTRATE THE GENERAL CONFIGURATION OF THE PROPOSE SOLAR COLLECTION SYSTEM AND ARE SUBJECT TO MODIFICATIONS AT FINAL ENGINEERING DESIGN.



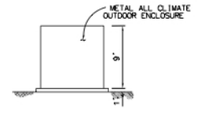
EAST ELEVATION
STORAGE STRUCTURE
N.T.S.



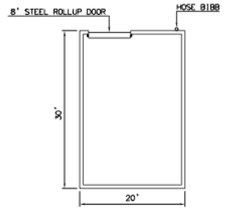
EAST ELEVATION
INVERTER/TRANSFORMER STRUCTURE
N.T.S.



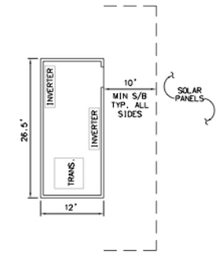
NORTH ELEVATION
STORAGE STRUCTURE
N.T.S.



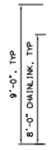
NORTH ELEVATION
INVERTER/TRANSFORMER STRUCTURE
N.T.S.



FLOOR PLAN
STORAGE BUILDING
N.T.S.

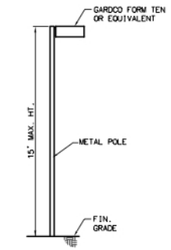


FLOOR PLAN
INVERTER/TRANSFORMER BUILDING
N.T.S.



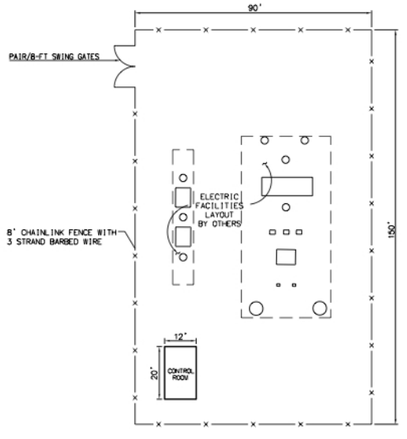
LINE POST @ 3 STRAND BARBED WIRE WRAPPED WITH CONCERTINA WIRE @ 45° ANGLE FACING OUT EVERY WHERE EXCEPT @ GATES

ELEVATION
BREAKAWAY FENCING DETAIL
N.T.S.

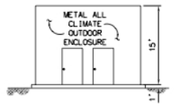


- 15' MAXIMUM HEIGHT
- 200 WATT MAXIMUM LOW PRESSURE SODIUM
- LOCATIONS:
  MAIN SITE ENTRY (1)
  ENTRANCE TO SUBSTATION (2)

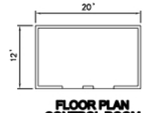
TYPICAL
MOTION- ACTIVATED
LPS SECURITY FLOOD LIGHT
N.T.S.



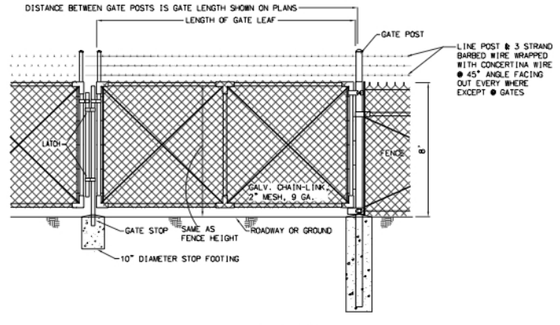
PRIVATE SUBSTATION
N.T.S.



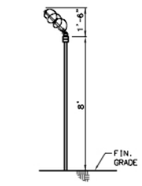
NORTH ELEVATION
CONTROL ROOM
N.T.S.



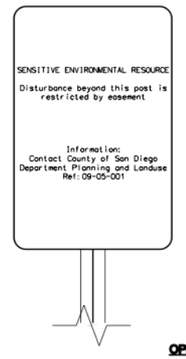
FLOOR PLAN
CONTROL ROOM
N.T.S.

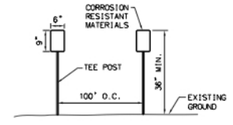


ELEVATION
HALF DOUBLE SWING GATE/FENCE
N.T.S.



SECTION
TYPICAL FENCE/GATE
8' CHAIN-LINKED FENCE WITH 3 STRAND BARBED WIRE WRAPPED WITH CONCERTINA WIRE





TYPICAL
OPEN SPACE SIGNAGE
N.T.S.

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Major Use Permit Plot Plan - Elevations / Details

Photovoltaic Solar Farm

Figure 3C

Typical Solar Panel Array Field Layout

Thin Film Panel

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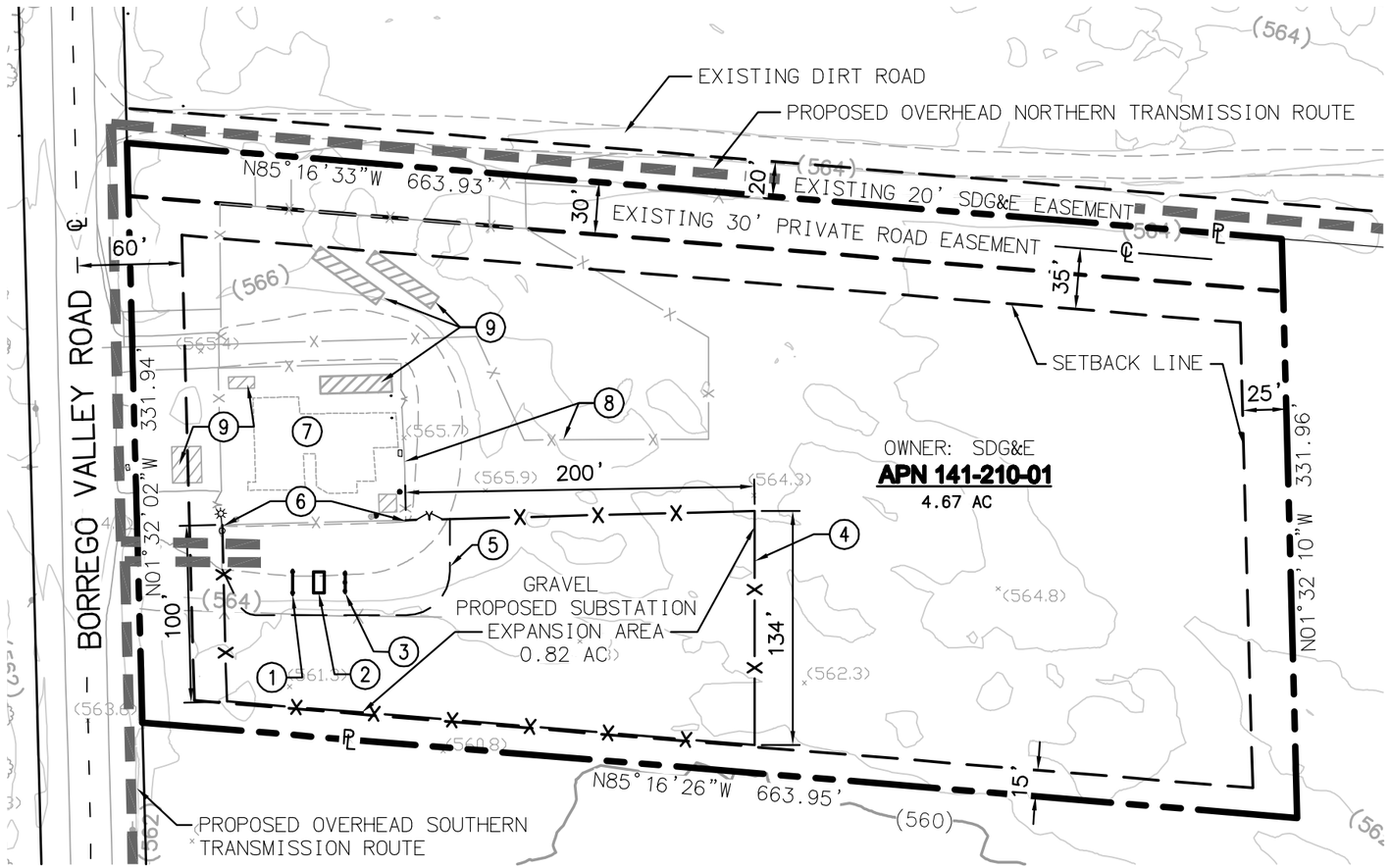
Typical PV Solar Layout

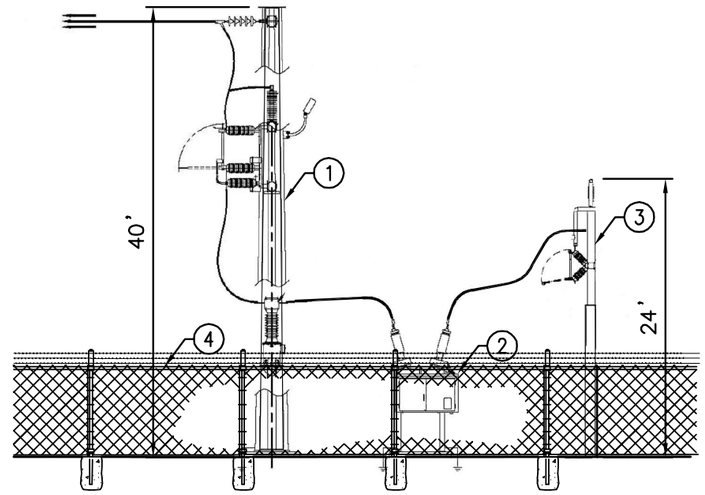
Photovoltaic Solar Farm

Figure 3D

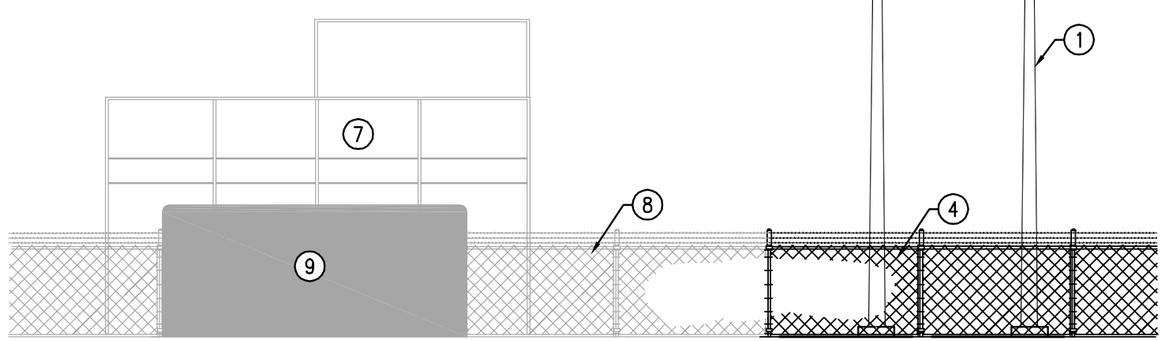


1. DEAD END STRUCTURE (69kV HIGH VOLTAGE RACK WITH DISCONNECT SWITCH)
2. HIGH VOLTAGE BREAKER
3. BUSBAR STRUCTURE (WITH DISCONNECT SWITCH)
4. PROPOSED 8' CHAINLINK BREAKAWAY FENCE WITH 3 STRAND BARB WIRE
5. PROPOSED 69 kV EQUIPMENT AREA
6. PORTION OF EXISTING FENCE TO BE REMOVED
7. EXISTING SDG&E SUBSTATION EQUIPMENT
8. EXISTING CHAINLINK FENCE (PORTION OF BREAKAWAY FENCE)
9. EXISTING STRUCTURE

80 160



SOUTH ELEVATION
SCALE: NTS



WEST ELEVATION
SCALE: NTS

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SDG&E Borrego Substation – Proposed Expansion Area

Photovoltaic Solar Farm

Figure 3E

Photo 1: View looking northwest/northeast from southern property boundary of 53-acre lease parcel.

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Existing Conditions - 53-acre Lease Parcel

Photovoltaic Solar Farm

Figure 4

Photo 2: View looking north/northwest across 288-acre parcel.

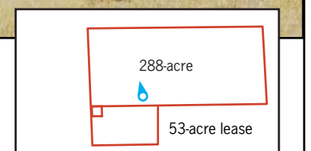

Photo 3: View looking west across 288-acre parcel.

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Existing Conditions - 288-acre Parcel

Photovoltaic Solar Farm

Figure 5

Photo 1: View looking northeast/northwest to Project site from Borrego Valley Airport.

Photo 2: View looking east/southeast to existing Substation and easement.

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Existing Offsite Conditions

Photovoltaic Solar Farm

Figure 6